What is Claimed Is:

1. A biosensing cell assembly comprising:

a. a substrate having a proximal end and a distal end;

b. a measurement loop located on the substrate, the measurement loop including:

i. a pair of spaced-apart conductors each having a proximal end and a distal end, the proximal ends located at the proximal end of the substrate for connection to an instrument,

ii. a test cell connected across the distal ends of the conductors, the test cell having an analyte reaction zone with an electrical impedance that varies in response to analyte concentration; and

c. a noise cancellation loop physically arranged to be exposed to substantially the same electromagnetic environment as the measurement loop and electrically connected to substantially cancel the effect of electromagnetically propagated field energy irradiating the biosensor cell assembly.

2. The biosensing cell assembly of claim 1 wherein the noise cancellation loop is on the substrate.

3. The biosensing cell assembly of claim 2 wherein the measurement loop and the noise cancellation loop are on the same side of the substrate.

4. The biosensing cell assembly of claim 3 wherein the measurement loop and the noise cancellation loop circumscribe generally the same area.

5. The biosensing cell assembly of claim 3 wherein the measurement loop and the noise cancellation loop are located adjacent each other.

6. The biosensing cell assembly of claim 2 wherein the measurement loop and the noise cancellation loop are on opposite sides of the substrate.

7. The biosensing cell assembly of claim 6 wherein the measurement loop and the noise cancellation loop are substantially congruent.

8. The biosensing cell assembly of claim 1, further comprising an instrument electrically connectable to the measurement loop, and further wherein the noise cancellation loop is located on a structure adjacent the measurement loop when the measurement loop is connected to the instrument.

9. The biosensing cell assembly of claim 8 wherein the noise cancellation loop is substantially congruent to the measurement loop.

10. The biosensing cell assembly of claim 1 wherein the measurement loop is physically arranged to have a first current induced therein having a first phase associated therewith when exposed to an ambient electromagnetic field and wherein the noise cancellation loop is physically arranged to have a second current induced therein, the second current having a second phase associated therewith when the noise cancellation loop is exposed to the same ambient electromagnetic field and wherein the first and second currents are combined to substantially reduce the effect of the ambient electromagnetic field on the biosensing cell assembly.

11. The biosensing cell of claim 10 wherein the first and second currents are combined to substantially cancel the effect of the ambient electromagnetic field on the biosensing cell assembly.

12. The biosensing cell assembly of claim 10 further including means for determining a response current to provide an indication of an analyte concentration.

13. The biosensing cell assembly of claim 12 wherein the means for determining the response current comprises a voltage source to apply a voltage across the test cell via the pair of conductors in the measurement loop and an amplifier connected to amplify the response current resulting therefrom.

14. The biosensing cell assembly of claim 13 wherein the measurement loop and the noise cancellation loop are physically arranged to have the phase of the second current displaced by 180 degrees from the phase of the first current and the measurement loop and the noise cancellation loop are electrically connected to add the first and second currents together.

15. The biosensing cell assembly of claim 13 wherein the measurement loop and the noise cancellation loop are physically arranged to have the first and second currents in phase with each other and the measurement loop and the noise cancellation loop are electrically connected to subtract the second current from the first current.

16. The biosensing cell assembly of claim 1 wherein the electrical impedance of the test cell varies within a predetermined range in response to various concentrations of the analyte.

17. The biosensing cell assembly of claim 16 wherein a predetermined impedance is included in the noise cancellation loop.

18. The biosensing cell assembly of claim 17 wherein the predetermined impedance included in the noise cancellation loop is within the impedance

range of the test cell when the test cell is amperometrically monitoring a response current to provide an indication of the analyte concentration.

19. The biosensing cell assembly of claim 17 wherein the impedance in the noise cancellation loop is substantially frequency independent.

20. The biosensing cell assembly of claim 17 wherein the noise cancellation loop has a pair of conductors, and the combination of the impedance in the noise cancellation loop, together with the conductors of the noise cancellation loop, has substantially the same frequency response characteristics as the combination of the test cell and conductors of the measurement loop.

21. A method of reducing electromagnetic interference in a measurement loop of the type providing an indication of analyte concentration using a response current passing through a test cell by way of a pair of conductors on a substrate, the method comprising:

a. physically aligning a noise cancellation loop with a measurement loop formed by the test cell and pair of conductors on a substrate; and

b. connecting the noise cancellation loop in anti-parallel with the measurement loop

such that any stray electromagnetic field induced current in the measurement loop is cancelled by a current induced by the same stray electromagnetic field in the noise cancellation loop.

22. The method of claim 21 wherein step a further comprises forming the noise cancellation loop and the measurement loop on the same test strip.

23. The method of claim 22 wherein step a further comprises providing the measurement loop on a disposable test strip and providing the noise cancellation loop on an instrument such that the noise cancellation loop is

physically aligned with the measurement loop when the test strip is connected to the instrument.